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Email Management and Work-Home Boundaries

Marta E. Cecchinato
 UCL Interaction Centre
 University College London
 London, WC1E 6BT
 marta.cecchinato.13@ucl.ac.uk

ABSTRACT

In my PhD research I am exploring the effect of email on work-home boundaries. The ultimate goal is to design a tool that helps people manage their email better and reduces the stress associated with this activity. I argue that this will require understanding individual differences in email behaviours and how email can impact work-home boundaries.

Author Keywords

Email; work-life balance; work-home boundaries; behaviour change.

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

INTRODUCTION

A benefit of mobile devices, such as smartphones and tablets, is that they enable us to be always connected, even when on the move. However, there are also costs associated with being ‘always on’, such as receiving work emails while at home and feeling one has to deal with them. This blurring of work-home boundaries can result in stress. How emails impact on work-home balance has not been deeply investigated in the literature, with the exception of Capra et al. [1]. In my PhD I aim to fill this gap by understanding the impact of email on work-home balance, in order to design a tool that reduces the stress of email overload.

Clark [3, p.751] proposed a work-family border theory according to which “people are border-crossers who make daily transitions between the two settings, often tailoring their focus, their goals, and their interpersonal style to fit the unique demands of each”. Being able to balance these two different worlds means achieving a satisfactory relation between both, where conflict is reduced to a minimum. Within the framework of boundary theory, Nippert-Eng [7] argues that the relationship between work and family lies along an integration-segmentation continuum. She explains

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how the use of certain artefacts such as calendars and keys, but also particular habits, can help visualize where people position themselves on this continuum and help them find a balance. Now that mobile technologies permeate our professional and private lives resulting in an always-connected society, we can consider email as one of these artefacts. Understanding email use across work-home boundaries can help define design and best practice guidelines.

In order to lessen the effect of email overload we have argued the need for flexible tools that support both personalisation and customisation, as these processes support different behaviour change techniques [2]. Personalisation involves system-driven change and can be used, for example, to nudge people into setting appropriate goals. Customisation involves user-driven change and, in combination with appropriate information, can encourage people to reflect on their email behaviour. Haraty et al. [6] argue that customizable tools should encourage reflection, because it is an effective way to change behaviours. Cox et al. [4] also discuss how self-reflection can increase self-awareness and that the insights gained can motivate behaviour changes.

RESEARCH GOALS AND METHODS

Currently, I am only five months into my PhD and this proposal therefore contains my problem statement and research questions, framed within the relevant literature.

Goal 1: Understanding email behavioural differences and the impact of email on work-home boundaries

1. *Study 1: qualitative method* [Data collection in progress]

Capra et al. [1] suggest that emails can be considered a boundary artefact that reflects one’s individual relationship between work and personal life. Their work is a pioneering study that compares email use within the same sample (university employees) across work and personal contexts. Their data was collected in 2010 and only marginally considers email use on mobile devices. Moreover, they rely only on quantitative methods (a self-report survey), asking participants identical questions about both their work and personal email accounts, using dimensions such as job role, email management, and boundaries and identities.

These limitations motivated my first study, which is aimed in general at understanding how people use email on different devices. To gain a deeper understanding of email behavioural differences among a similar professional sample, semi-structured interviews was chosen as the method. Data will be

analysed using thematic analysis. Interview questions cover topics such as email management strategies, devices used to access email, physical location in which email is accessed, the concept of email overload, and the role of email in work-home boundaries.

2. *Study 2: quantitative method* [Study design in progress]

There has been little consideration in the email literature of deferral behaviour, in particular understanding what triggers an immediate response and what causes delays.

This second study is based on two unpublished experiments conducted recently within my research group. Extending Wainer, Dabbish and Kraut's email study [8] to a real-world context, two longitudinal experiments have investigated how manipulating information shown in email headers affects how people respond to emails. Both experiments were set up in the form of a competitive game than ran for 2 and 3 weeks respectively. At the end of the experiments, the two participants with the most points received a money prize. A third prize was also awarded randomly. In particular, participants, who were mainly professionals, were shown information about the urgency, utility and time cost of the email. Each day, participants received around 20 emails and were awarded points if they responded within specified times.

My second study builds on these two experiments, but focuses on understanding reasons behind deferral behaviour. Using the same game set up and the same dependent variables (number of on-time responses and response times), we will vary the four independent variables (information gap, urgency, points, cost of response). Results from this second study should give insight into what motivates people to respond immediately or defer their replies. Understanding people's prioritization strategies can shed more light on how people handle email across work-home boundaries.

Together, the first two studies in my PhD should help me identify common email strategies and provide insights into how email management tools can facilitate a satisfactory work-home balance.

Goal 2: Designing and evaluating a personalisable and customizable tool that accommodates email behavioural differences and can help change habits so that a satisfactory work-home balance can be achieved.

3. *Study 3: Email tool development and assessment* [next step]

Based on the ideas presented in our workshop paper [2] and on the data collected from the first two studies, my goal is to build a web-based tool/website that can help people reflect on their own idiosyncratic differences. I will investigate whether self-reflection facilitates changes in email behaviour that result in a more satisfactory work-home balance. To

support this phase, the tool/website should provide adequate recommendations (such as suggesting what existing tool could help an individual's problem) and social engagement. This third study, both in its design phase and evaluation process will rely on behaviour change theories, such as goal-setting theory, theory of planned behaviour and nudge theory.

RESEARCH SITUATION

I started my PhD in October 2013 funded by an EPSRC DTG studentship for four years. In addition, my research is part of the Digital Epiphanies project, also funded by EPSRC (grant EP/K025392/1). By the time of the Doctoral Consortium I will have gathered and analysed data from my first two studies, which I would like to present and discuss. My primary interest is to get feedback on how to best design the tool for my third study and follow-up ones.

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REFERENCES

1. Capra, R., Khanova, J., & Ramdeen, S. Work and personal email use by university employees: PIM practices across domain boundaries. *Journal of the American Society for Information Science and Technology*, 64(5), (2013), 1029-1044.
2. Cecchinato, M.E., Bird, J., & Cox, A.L. Personalised Email Tools: a solution to email overload? In *CHI Personalized Behaviour Change Technologies Workshop*, (2014).
3. Clark, S. C. Work/family border theory: A new theory of work/family balance. *Human relations*, 53(6), (2000), 747-770.
4. Cox, A.L., Bird, J. & Fleck, R. Digital Epiphanies: How self-knowledge can change habits and our attitudes towards them. *BCS HCI 1st Workshop on Habits in Human-Computer Interaction*, (2013).
5. Dabbish, L. A., & Kraut, R. E. Email overload at work: an analysis of factors associated with email strain. In *Proc. CSCW*, (2006), 431-440.
6. Haraty, M., McGrenere, J., & Tang, C. Role of Reflection in Customization Behaviors. In *CHI Simple, Sustainable Living Workshop*, (2012).
7. Nippert-Eng, C. Calendars and keys: The classification of "home" and "work". In *Sociological Forum*, 11(3), (1996), 563-582.
8. Wainer, J., Dabbish, L., & Kraut, R. Should I open this email?: inbox-level cues, curiosity and attention to email. In *PART 5 Proc. Human factors in computing systems*, (2011), 3439-3448.
9. Whittaker, S., & Sidner, C. Email overload: exploring personal information management of email. In *Proc. CHI* (1996), 276-283.